California Regional Water Quality Control Board
Central Coast Region

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FACT SHEET

DEVELOPMENT OF TOTAL MAXIMUM DAILY LOADS FOR NUTRIENTS AND NUTRIENT-RELATED IMPAIRMENTS: LOWER SALINAS RIVER WATERSHED

What is a Total Maximum Daily Load?

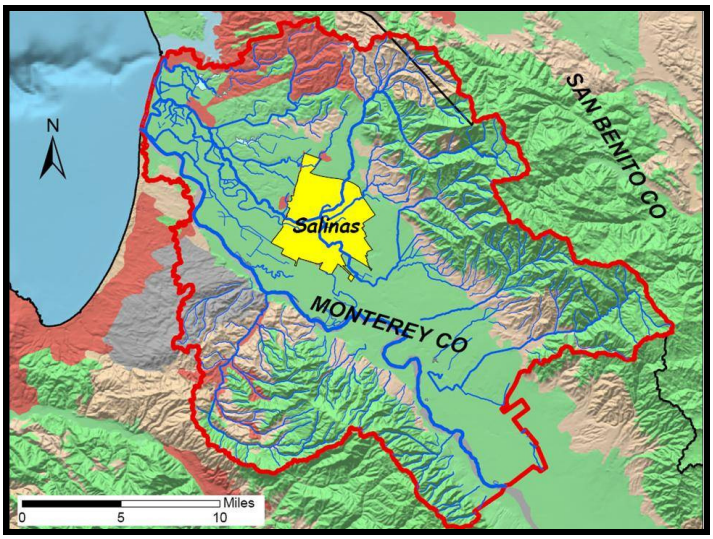
The federal Clean Water Act requires every state to evaluate its waterbodies, and maintain a list of waters that are considered "impaired" either because the water exceeds water quality standards or does not achieve its designated use. For each water on the Central Coast's "303(d) Impaired Waters List", the California Central Coast Water Board must develop and implement a plan to reduce pollutants so that the waterbody is no longer impaired and can be de-listed.

A Total Maximum Daily Load (TMDL) is a term used to describe the maximum amount of a pollutant(s) that a waterbody can receive and still meet water quality standards. A TMDL study identifies the probable sources of pollution, establishes the maximum amount of pollution a waterbody can receive and still meet water quality standards, and allocates that amount to all probable contributing sources.

Location and Watershed Description

The proposed geographic scope of this TMDL encompasses approximately 400 square miles of the Lower Salinas Valley in northern Monterey County, including the Lower Salinas River, the Salinas Reclamation Canal and their tributaries. The watershed is bounded by the Gabilan Range to the east; by the Sierra De Salinas range to the west; and includes the contributing watershed area beginning at the town of Gonzales and extending downstream to Old Salinas River Estuary. The Salinas River Lagoon and the Old Salinas River Estuary are the two receiving water bodies at the downstream outlet of the project area.

Agriculture is the current dominant land use in the watershed, with increasing transition to urban use. The City of Salinas, and other urbanized areas account for approximately 10 percent of the watershed's land use. Grassland, rangeland and forest also comprise substantial parts of the watershed.



Lower Salinas River Watershed

Why Do We Need a Nutrient TMDL for the Lower Salinas River Watershed?

While nutrients - specifically nitrogen and phosphorus – are essential for plant growth, and are ubiquitous in the environment, they are considered pollutants when they occur at levels which have adverse impacts on water quality. Adverse impacts of excessive nutrient loading can be placed in two general categories: toxic effects and eutrophication. Toxic effects can apply to aquatic life inhabiting the waterbody or to humans consuming or contacting the water. Eutrophication is the excessive and undesirable growth of algae and aquatic plants that may be caused by excessive levels of nutrients. Eutrophication effects typically occur at somewhat lower nutrient concentrations than toxic effects. Either of these modes of water quality impairment can affect the entire aquatic food web, from algae and other microscopic organisms, through benthic macroinvertebrates (principally aquatic insect larvae), through fish, to the mammals and birds at the top of the food web.

Monitoring data from creeks and streams in the Lower Salinas River Watershed indicate elevated nitrate and ammonia (a nitrogen compound) concentrations, which potentially impair certain designated beneficial uses of these waters; their tributaries; and/or their downstream receiving water bodies. Potential impairments resulting from these elevated nutrient concentrations may include degradation of municipal and domestic water supplies and aquatic freshwater habitat beneficial uses.

California's water quality standards designate beneficial uses for each waterbody (e.g., drinking water supply, aquatic life support, recreation, etc.) and the scientific criteria to support that use. The California Central Coast Water Board is required under both State and Federal Law to protect and regulate beneficial uses of waters of the state.

In this TMDL project, water supply and aquatic habitat are likely to be the most sensitive applicable beneficial uses (i.e., the most stringent numeric water quality standards). A TMDL project developed by the Water Board for nutrients will identify nutrient-impaired waterbodies in the watershed, identify numeric water quality targets to restore impaired designated beneficial uses, identify probable sources of nutrient loading, and propose an implementation plan outlining effective alternatives to restore water quality. To the extent possible, TMDLs leverage existing regulatory programs and permits to minimize cost and maximize effectiveness.

What are the Sources of Nutrient Loads?

Probable sources of nutrient loading in the Lower Salinas River watershed have **not** yet been assessed or identified. Source analysis will be a key component of TMDL development.

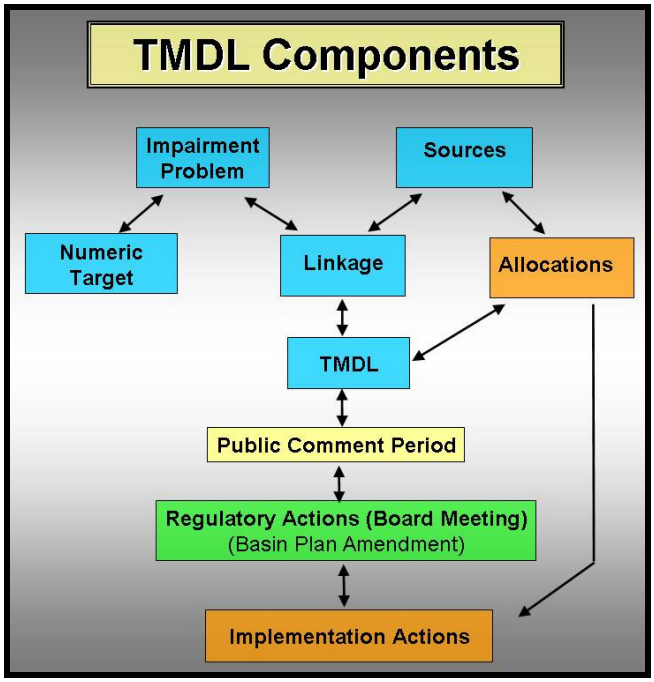
There are many possible nutrient sources within any given watershed; in general the following can potentially be significant sources of nutrient loads:

- Urban Runoff
- Wastewater Treatment Plants
- Fertilizer/Manure Applications
- Animal Feeding Operations (feedlots)
- Livestock
- Septic Systems
- Natural Background and Atmospheric Deposition
- Groundwater (baseflow into streams)

The TMDL Process

A TMDL is developed by the California Central Coast Water Board staff, and must go through a hierarchy of approvals before it can go into effect. Public participation is an element of TMDL development. Water Board staff notify interested parties of opportunities for public participation through public meetings/workshops, we solicit public comments, and we encourage other forms of public participation through correspondence, email, and other informal contacts

A TMDL must be approved by the Central Coast Water Board and the U.S. Environmental Protection Agency. We anticipate developing this TMDL over the next 12 months, and tentatively bringing it to the Central Coast Water Board for consideration sometime in late-2011.



TMDL Components

For More Information

The Central Coast Water Board encourages interest and involvement in TMDL projects from stakeholders, interested parties, and the general public. Please refer to the Water Board's TMDL webpage at:

http://www.waterboards.ca.gov/centralcoast/water_issues/programs/tmdl

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***Salinas River at Spreckles** (Photo: USGS)*